September 3, 2014
(file: 2050)

KEATING
ENVIRONMENTAL
MANAGEMENT, INC.

835 Springdale Drive
Suite 200
Exton, PA 19341

610.594.2600 P
610.594.6100 F

keatingenvironmental.com

Ms. Francine Locke, Director
Office of Environmental Management and Services
School District of Philadelphia
440 North Broad Street, 3rd Floor
Philadelphia, PA 19130

RE: PCB Transformer Removal - Serial No. 3475167
Strawberry Mansion High School
3133 Ridge Avenue
Philadelphia, Pennsylvania 19132

KEM

KEATING
ENVIRONMENTAL
MANAGEMENT

Environmental, Energy & Sustainability Solutions

Dear Francine:

This letter documents the decommissioning and disposal of the polychlorinated biphenyl (PCB) transformer – Serial No. 3475167 from the electrical substation at the Strawberry Mansion High School (SMHS). On-site activities associated with the decommissioning and disposal of this transformer occurred from August 13 – 14, 2014.

Background

SMHS has been operating the two PCB transformers listed below under a Consent Decree between the School District of Philadelphia (SDP) and the United States Environmental Protection Agency (USEPA) since March 1997.

PCB Transformer Summary Strawberry Mansion High School	
Transformer	Serial Number
Transformer 1	3475167
Transformer 2	3475168

During August of 2014, both PCB transformers were removed from this location. A separate correspondence that addressed the removal and disposal of the transformer with the Serial No. 3475168 has been provided to the SDP.

Transformer Removal

The transformer that is the subject of this correspondence (Serial No. 3475167) was manufactured by Allis Chalmers and contained 3,313 pounds (approximately 255 gallons) of Chlorextol dielectric fluid.

As part of the project associated with the replacement of the PCB transformers, a technical specification that included a description of the environmental requirements for the removal and disposal of the PCB transformers in accordance with the Consent Decree and applicable state and

federal regulations was prepared. Information describing the contract, inclusive of decommissioning and disposal of the PCB transformers at SMHS, is described in our letter of September 2, 2014.

On August 13, 2014, Keating Environmental initiated on-site observation of the decommissioning and removal of the PCB transformer number with the Serial No. 3475167. Decommissioning activities included transferring the dielectric fluid into one 350-gallon steel tote and removing the fluid and transformer carcass from the substation. The draining of the transformer occurred on August 13, 2014 and the removal of the containerized dielectric fluid, drummed debris, and transformer carcass occurred on August 14, 2014. In addition, an epoxy coating was applied over an existing epoxy coated area proximate to the transformer.

KEM

The primary activities that were completed during the decommissioning of the transformer with the Serial No. 3475167 were generally similar to the decommissioning activities of transformer Serial No. 3475168 (but without the complications) and are described in our letter of September 2, 2014, except for the following:

- Non-PCB stains/discolorations on the substation floor, in the adjacent light well, and the work area outside the building were identified and marked before the work was initiated. Other than the PCB encapsulated floor area proximate to this transformer, no PCB related floor staining was observed prior to August 13, 2014[1].
- Approximately 255-gallons of dielectric fluid from the transformer was pumped into one 350-gallon steel tote. The tote was placed inside a secondary containment sack and placed on plastic sheeting inside the substation during its filling.
- Drain protectors and rubber mats that were in the transformer room were also removed and placed into the waste drum. No new stains were present in the work locations.
- The PCB warning labels on the substation access doors were removed.
- The drum, tote of PCB oil, and carcass were transported from the site (in two separate shipments due to the size of the truck) on August 14, 2014. The first load consisted of the tote, which was labeled as PCB and manifested under a uniform hazardous waste manifest for transport to a Clean Harbors facility in Twinsburg, Ohio. The second load consisted of

[1] In August of 1997, as a result of a release of PCB fluids from this transformer that contaminated a small area of the concrete floor proximate to this transformer, an epoxy encapsulant was placed as an interim remedial measure. The area of the floor that was encapsulated is fully described within the April 2009 "PCB Removal and Disposal Plan" for this location.

the drum and the transformer carcass, which were also labeled as PCB and manifested under a uniform hazardous waste manifest.

- Copies of the uniform hazardous waste manifests showing acceptance of the PCB material at the Twinsburg facility are attached.

No evidence of PCB oil staining was observed on the floor slab beneath PCB transformer – Serial No. 3475167 following its removal. It is noted that extending a couple of inches under the footprint area of the removed transformer was an area of dried epoxy hardener that was used when the initial epoxy coating was applied in the 1990s.

KEM

On August 14, 2014, the previously encapsulated area, as well as, an area extending approximately one-foot beyond the perimeter of the previously encapsulated area was detergent cleaned. Then, one layer (colored gray) of epoxy was placed over the previously coated area (which was yellow). To be conservative, the area that was re-encapsulated was extended by approximately 10- to 12-inches "under" the footprint of the removed transformer.

No drilling, coring or abrading of the encapsulated area occurred during the installation of the new transformer. Because PCB-impacted concrete remains at the school, the requirements of the Consent Decree regarding the maintenance and documentation of the encapsulated area remains applicable.

Additional documentation regarding waste disposal/destruction will be provided to the School District when received.

Please contact me if you have any questions or comments.

Regards
KEATING ENVIRONMENTAL MANAGEMENT, INC.

Keith Choper, PE, LEED-AP
President

Attachments: Uniform Hazardous Waste Manifests
Photographs

Cc: Mr. Jerry Junod
File 5385
File 2050

Uniform Hazardous Waste Manifests

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) 1401352984 Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: 40CFRPART761
2. Page 1 of: 1
3. Emergency Response Phone: (800) 424-9300 (800) 473-3718
4. Manifest Tracking Number: 007526205 FLE

GENERATOR

5. Generator's Name and Mailing Address
SCHOOLDISTRICT OF PHILADELPHIA
ATTN: FRANCINE LOCKE 440 NORTH BROAD STREET, ROOM 3034
PHILADELPHIA, PA 19130
Generator's Phone: (215) 551-4794

Generator's Site Address (if different than mailing address)
STRAWBERRY MANSION HIGH SCHOOL
3133 RIDGE AVENUE
PHILADELPHIA, PA 19132

6. Transporter 1 Company Name: CLEAN HARBORS ENVIRONMENTAL SERVICES, INC.
U.S. EPA ID Number: MAD033322250

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
CLEAN HARBORS PPM, LLC
1675 EAST HIGHLAND ROAD
TWINSBURG, OH 44087
Facility's Phone: (330) 425-3825
U.S. EPA ID Number: OHD986875393

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. RQ, UN2315, POLYCHLORINATED BIPHENYLS, LIQUID, 9, PG III (PCBS)	001	CM	3091 ~~3091~~	K	NONE
	2. RQ, UN3432, POLYCHLORINATED BIPHENYLS,SOLID, 9, PG III (PCBS)	001	DM	.91	K	NONE
	3.					
	4.					

14. Special Handling Instructions and Additional Information
981 Unique ID # SP3413161- 982 DM-10
1) PPMCHTRH, 2) PPMCHSL ERG # 171
DATE REMOVED FROM SERVICE FOR DISPOSAL: 8-14-14

SEND COPY TO: KEATING ENVIRONMENTAL MANAGEMENT
835 SPRINGFIELD DRIVE
EXTON, PA 19341

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Paul Davis — Agent for School Dist. of Phila. (SDP)
Signature: Paul Davis — Agent for SDP
Month: 08 Day: 14 Year: 14

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Alex Caulder
Signature: Alex Caulder
Month: 08 Day: 14 Year: 14
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Luciana Ross
Signature: Luciana Ross
Month: 08 Day: 14 Year:

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

4021226 4 -65

CLEAN HARBORS PPM, LLC— PCB CONTINUATION SHEET

Each Unit Must Be Marked On Sheet With All Corresponding Information Filled In

THIS PAGE MUST MATCH THE MANIFEST IT ACCOMPANIESAND MUST ACCOMPANY ALL MANIFESTS

Pg 1 of 1

GENERATOR Strawberry Mansion High School MANIFEST 007526205 FLE

Mat Line #	Unit Type	Unique Generator ID Number	Serial Number	Material Type	Out of Service Date	KVA	Transformer Type	Phase	LBS	KGS	Full or Empty	PCB Level
981	CM	T-2	3475167 Allis Chalmers	Transformer	8-14-14	1000	SUBSTD	3	6800	3091	MT	>10000
982	DM	D-10	—	—	8-14-14	—	—	—	200	91	Full	>10000

UNIT TYPES:
DM=DRUM METAL
DF=DRUM FIBER

Phase
Single Phase
Three Phase

MATERIAL TYPE:
SWITCH OCB
BUSHING OIL
CAPACITOR TRANSFORMER

TRANSFORMER TYPE:
POLE
PAD
SUBSTATION

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

14013529984

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: 4 8 C F R P A R T 7 6 1

2. Page 1 of: 1

3. Emergency Response Phone: (800) 424-9300

4. Manifest Tracking Number: 007526204 FLE

GENERATOR

5. Generator's Name and Mailing Address:
SCHOOLDISTRICT OF PHILADELPHIA
ATTN: FRANCINE LOCKE 440 NORTH BROAD STREET, ROOM 3034
PHILADELPHIA, PA 19130

Generator's Site Address (if different than mailing address):
STRAWBERRY MANSION HIGH SCHOOL
3133 RIDGE AVENUE
PHILADELPHIA, PA 19132

Generator's Phone: (215) 551-6754

6. Transporter 1 Company Name: CLEAN HARBORS ENVIRONMENTAL SERVICES, INC.
U.S. EPA ID Number: M A D 0 3 9 3 2 2 2 5 0

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address:
CLEAN HARBORS PPM, LLC
1675 EAST HIGHLAND ROAD
TWINSBURG, OH 44087
U.S. EPA ID Number: O H D 9 8 6 8 7 5 3 3 9

Facility's Phone: (330) 425-3825

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	1. RQ, UN2315, POLYCHLORINATED BIPHENYLS, LIQUID, 9, PG III (PCBS)	001	TP	1773	K	NONE		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information: Waste ID# TP-1
1) PPMDH3 ERG # 171
DATE REMOVED FROM SERVICE FOR DISPOSAL: 8-14-14

SEND COPY TO: KEATING ENVIRONMENTAL MANAGEMENT
835 SPRINGFIELD DRIVE
EXTON, PA 19341

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
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Generator's/Offeror's Printed/Typed Name: Paul Davis — Agent for School Dist. of Phila. (SDP)
Signature: Agent for SDP
Month: 08 Day: 14 Year: 14

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17. Transporter Acknowledgment of Receipt of Materials
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Signature:
Month: 08 Day: 14 Year: 14
Transporter 2 Printed/Typed Name:
Signature:
Month: Day: Year:

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month: Day: Year:

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Luciana Ross
Signature: Luciana Ross
Month: 08 Day: 14 Year:

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)

40212395

Photographs

Transformer No. 3475167

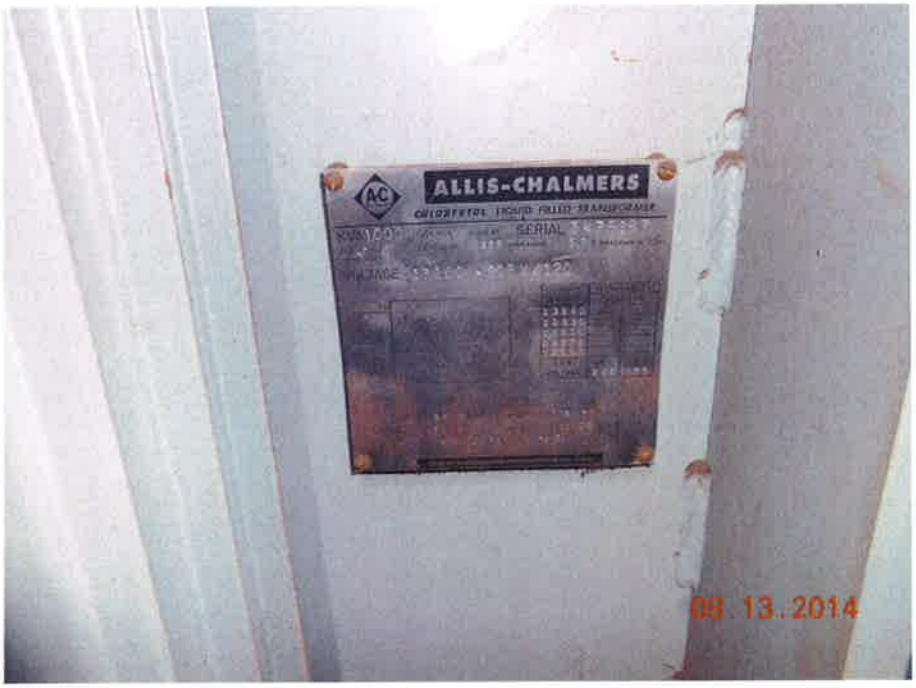

Photo 1 – Transformer No. 3475167 Nameplate.

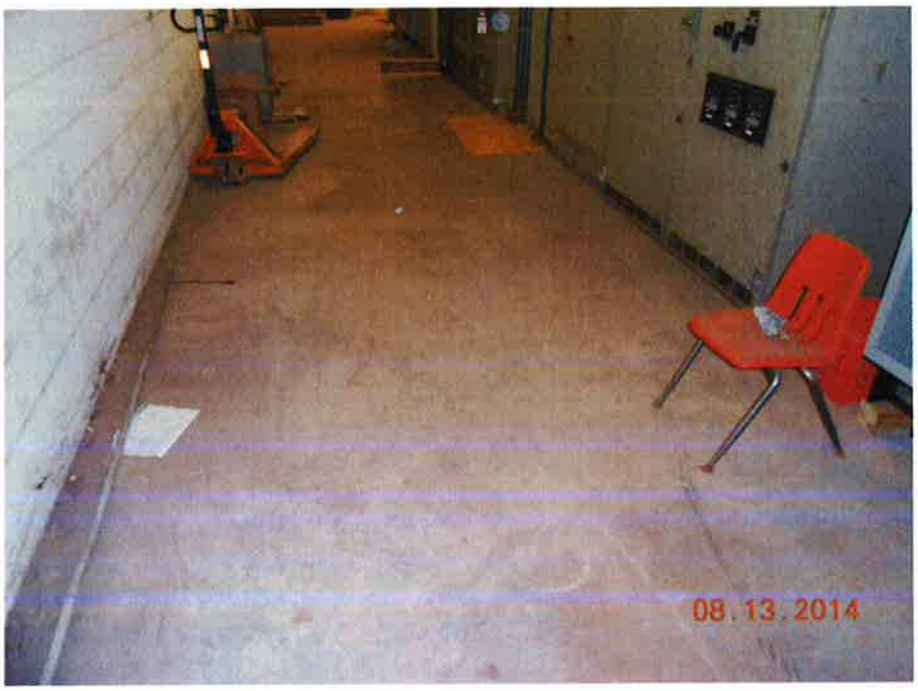

Photo 2 – Transformer No. 3475167 prior to removal activities.

Signature: Paul M. Dein

Date: 8/13/2014

Photograph Documentation

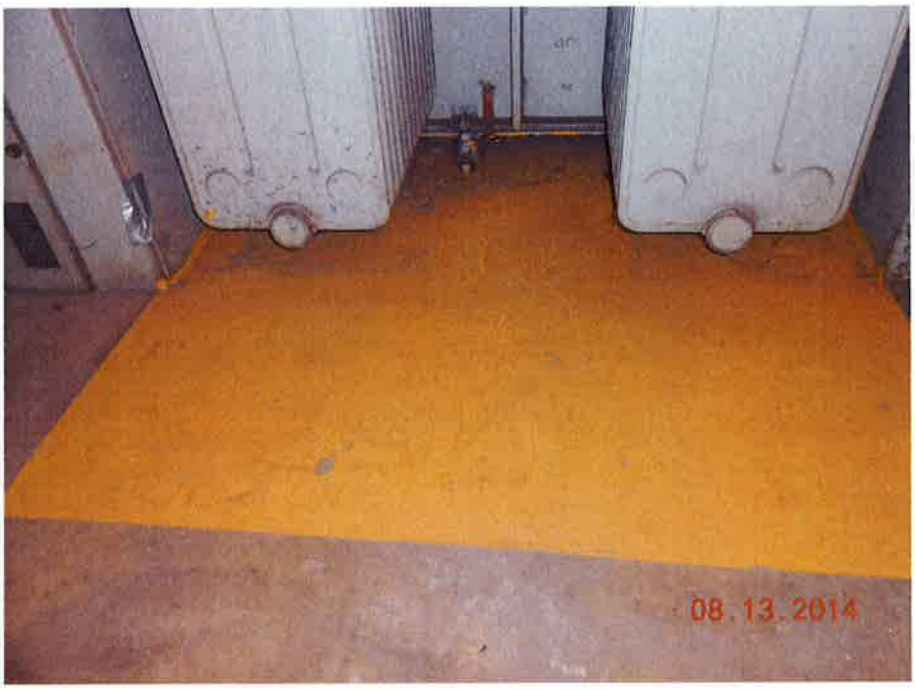

Photo 3 – Transformer No. 3475167 prior to PCB oil removal.

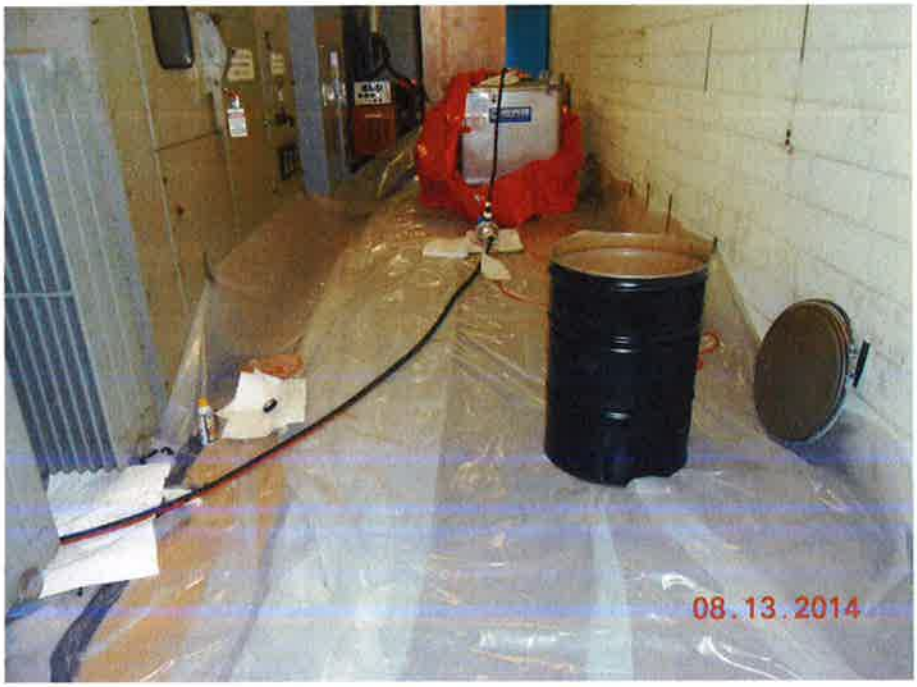

Photo 4 – Transformer No. 3475167 during PCB oil removal.

Signature: Paul M. Dorin

Date: 8/13/2014

Photograph Documentation

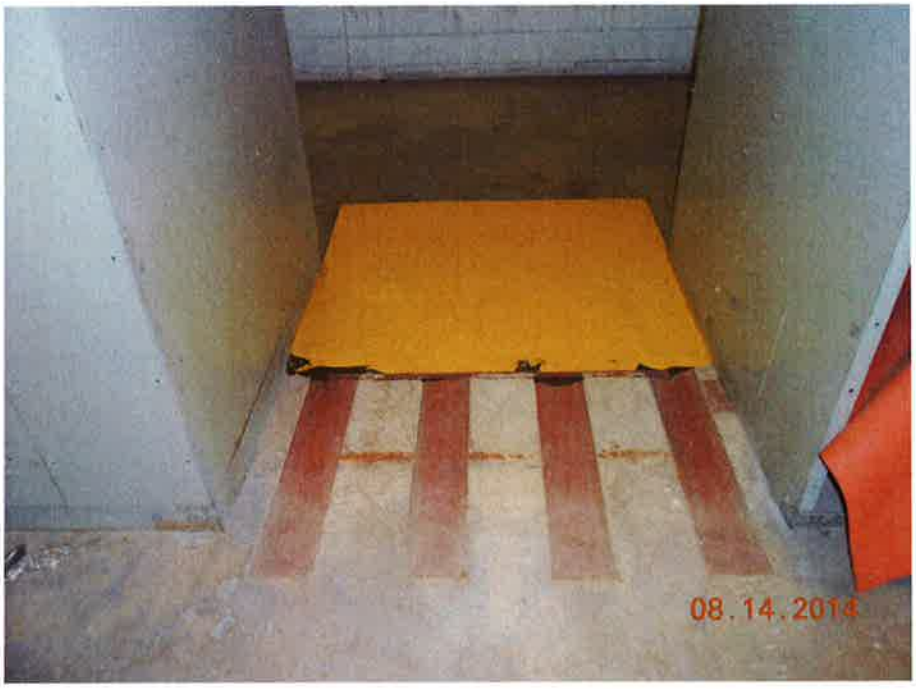

Photo 5 – Transformer No. 3475167 floor beneath former location of transformer. Darker areas on edge are dried epoxy hardener from initial encapsulation.

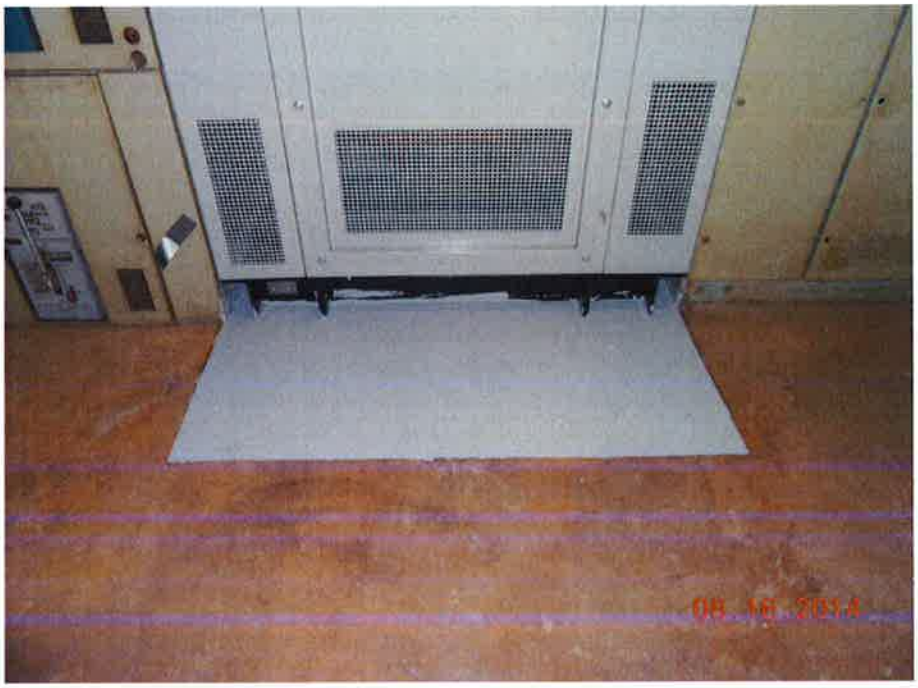

Photo 6 – Transformer No. 3475167 epoxy re-encapsulation – gray layer.

Signature: Paul M. Dein

Date: 8/16/2014

Photograph Documentation